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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of **Federal-State Joint Board on Universal Service: Promoting Deployment and Subscribership in Unserved and Underserved Areas, Including Tribal and Insular Areas**	**CC Docket No. 96-45**

To the Commission:

REPLY COMMENTS OF MOTOROLA AND IRIDIUM NORTH AMERICA

Motorola, Inc. ("Motorola") and Iridium U.S., L.P. d/b/a Iridium North America ("INA"), by their attorneys, hereby submit these reply comments in connection to the Further Notice of Proposed Rulemaking ("FNPRM") issued in the above-captioned proceeding.[1]

I. SATELLITE SYSTEMS CAN PROVIDE TELECOMMUNICATIONS SERVICES TO TRIBAL LANDS AND OTHER UNSERVED AREAS IMMEDIATELY

As a number of commenters in this proceeding have stated that commercial satellite systems currently offer the capability of providing efficient telecommunications services

[1] *In the Matter of, Federal State Joint Board on Universal Service: Promoting Deployment and Subscribership in Unserved and Underserved Areas, Including Tribal and Insular Areas*, Further Notice of Proposed Rulemaking, CC Docket No. 96-45, FCC 99-204 (rel. Sep. 3, 1999), 64 Fed. Reg. 52,738 (Sep. 30, 1999) (all citations to the FNPRM hereinafter refer to FCC 99-204 as released on Sept. 3, 1999).

to virtually all unserved areas in the United States and its territories.[2] The Iridium system, in particular, can provide telecommunications services to these areas today, offering an immediate solution to the Commission's goal of bringing affordable telecommunications services to Indians on tribal lands.

Due to the economic conditions on many Indian reservations, however, it is unlikely that any telecommunications services, whether wireline, wireless or satellite, can be provided without Universal Service Fund ("USF") support. In order to enable advanced technologies, such as satellites, to bring modern telecommunications services to tribal lands, the comments reflect that certain USF regulatory and financial impediments must be lifted. [3]

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[2] Comments of Motorola and Iridium North America *at* 2, 5-6 (Dec. 17, 1999) ("Motorola and INA Comments") (illustrating the Iridium system's current capability of providing telecommunications services to residents of unserved areas); Comments of AMSC Subsidiary Corporation *at* 2 (Dec. 17, 1999) ("AMSC Comments") ("Satellite systems can uniquely provide seamless coverage in [tribal] areas, including those situated in geographically extreme terrain, with minimal need for deployment or buildout of costly facilities and infrastructure."); Comments of AirTouch Communications and Globalstar USA, Inc. *at* 5 (Dec. 17, 1999) ("Globalstar Comments") (explaining that satellite telecommunications services are "a cost-effective way of bringing some level of service to geographic areas that are difficult, if not impossible to serve economically using other technologies."); Comments of CCI International N.V. *at* 2 (Dec. 17, 1999) ("CCI Comments") ("MSS systems do not require the construction of significant amounts of ground based infrastructure to extend service to users in geographically remote or low population density areas."); Comments of SkyBridge, L.L.C. *at* 2 (Dec. 17, 1999) ("SkyBridge Comments") (illustrating that satellites "could provide high-quality, cost-effective basic and advanced telecommunications services to even the most remote areas of the country."); Comments of Titan Wireless *at* 1 (Dec. 20, 1999) ("Titan Comments") (affirming that satellite systems can serve remote communities more economically than wireline systems); Comments of NRTA and OPASTCO *at* 7-8 (Dec. 17, 1999) ("NRTA and OPASTCO Comments") (acknowledging benefits of wireless technology for remote rural areas); Comments of GCI *at 4* (Dec. 17, 1999) ("GCI Comments") (supporting the use of satellite technology alternatives); *see also,* comments of the State of Alaska *at* 2-6 (Dec. 17, 1999) ("Alaska Comments") (revealing the severe hardship faced by Alaskan terrestrial telecommunications carriers in attempting to overcome Alaska's extreme demographic and geographic impediments).

[3] Motorola and INA Comments *at* 10-19 (analyzing financial and regulatory changes needed to bring satellite telecommunications services to tribal lands and other unserved areas);

(Continued ...)

II. THE COMMISSION MUST UPDATE THE UNIVERSAL SERVICE FUND RULES TO ACCOMMODATE SATELLITE TECHNOLOGIES

The commenters overwhelmingly support making the USF support mechanisms more accessible to advanced technologies, such as satellite and terrestrial wireless systems.[4] Indeed, as one commenter observed, "[w]ireless carriers face a 'square peg/round hole' problem because the rules are written from a landline perspective and do not easily accommodate terrestrial or satellite-delivered wireless services."[5] Further, the administrative aspects of USF

AMSC Comments *at* 3 (averring that the primary obstacle to provision of MSS in tribal areas is affordability for MSS equipment and services); Globalstar Comments *at* 5 (stating that "some sort of subsidy would be appropriate to ensure that provision of . . . mobile satellite service in these unserved areas makes a meaningful difference."); CCI Comments *at* 2 (stating that the costs of MSS service are higher than comparable wireline and terrestrial wireless services in high density areas); SkyBridge Comments *at 6* (urging the Commission to "include support for satellite-delivered services . . . ."); Titan Comments *at* 1 ("[T]he inexorable economics of service to these perennially unserved or underserved areas means plainly that support is needed . . . .").

[4] Motorola and INA Comments *at* 10 (urging the Commission to update the USF system in order to increase telecommunications service penetration by satellites in unserved areas); AMSC Comments *at* 7 (advocating for the use of a technology-neutral policy that permits satellite providers to receive high-cost support); Globalstar Comments *at* 7-11 (suggesting the Commission open up unserved areas to satellite carriers) ; CCI Comments *at* 4 (advocating the utilization of universal service support mechanisms for LEO MSS services); SkyBridge Comments *at* 2 (stating that "the FCC must ensure access to alternative delivery systems . . . by expanding access to the Universal Service Fund for broadband satellite systems."); Comments of the United States Cellular Corporation *at* 2-7, 10 (Dec. 17, 1999) ("USCC Comments") (stating that the USF rules must be more wireless friendly); Comments of Dobson Communications Corporation *at* 3-4 (Dec. 17, 1999) ("Dobson Comments") (supporting technological neutrality); Comments of Western Wireless *at* 10 (Dec. 17, 1999) ("Western Wireless Comments") (supporting technological neutrality); Comments of CenturyTel, Inc. *at* 13 (Dec. 17, 1999) ("CenturyTel Comments") (reiterating the "need to design a universal service support mechanism that simultaneously supports differing technologies."); GCI Comments *at* 4-7 (urging the flexible use of USF support for alternate technologies in Alaska); Comments of Bell Atlantic Mobile *at* 20-24 (Dec. 17, 1999) ("BAM Comments") (urging the Commission to bring the USF system up to date with wireless technology); *see also*, Comments of GTE *at* 12 (Dec. 17, 1999) ("GTE Comments") (acknowledging that wireless or satellite providers that meet the regulatory requirements should be certified as ETCs).

[5] BAM Comments *at* 20.

support mechanisms "must be flexible enough to recognize the differences between the global nature of LEO MSS systems and the local nature of more conventional ground-based wireline and wireless technologies."[6] Certain commenters express concern that encouraging new technology can delay or prevent service improvements.[7] To date, however, more than fifty percent of the tribal land residents still lack basic telecommunications services, and wireline telecommunications systems have proven inadequate or wholly incapable of serving many remote, low-income and high-cost areas. Motorola and INA, therefore, urge the Commission to modify the USF system to better accommodate satellite and terrestrial wireless telecommunications services so that these basic telecommunications services can be accessed without delay.[8]

Specifically, the Commission must update and broaden the terminology in the USF regulations to accommodate the attributes of wireless and satellite technologies.[9] For example, the Commission should either clarify which costs a satellite provider may use to calculate the "working-loop costs" of providing satellite telecommunications services or explicitly acknowledge that a satellite retailer's national telecommunications rate is, in fact, equivalent to its costs.[10] Accordingly, Motorola and INA also agree with BAM that the term

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[6] CCI Comments *at* 4

[7] NRTA and OPASTCO Comments *at* 10; *see also* Comments of the Rural Utilities Service *at* 12 (Dec. 17, 1999) ("RUS Comments") ("The Commission should ensure that rural LECs use technology that can cost-effectively add advanced services.").

[8] Motorola and INA Comments *at* 2, 10-18; *see also supra* notes 4-6 and accompanying text.

[9] Motorola and INA Comments *at* 10-11.

[10] *Id.*

"subscriber" should replace "working loop,"[11] the term "consumer" should replace "residential"[12] and the term "service" should replace "connection."[13] These proposed changes in terminology exemplify the generic need for rule revisions that will enable satellite and terrestrial wireless technologies to bring telecommunications services to unserved areas of the United States.

More than revisions in terminology, however, are necessary. The Commission must interpret its requirements for Eligible Telecommunications Carrier ("ETC") classification in a way that meets the needs of unserved areas. While INA currently provides many of the "supported services" required by the Commission's USF rules, [14] with some adjustments to the rules, INA could provide comparable services consistent with the purpose of the USF goals and objectives.[15] The Commission must also adapt the procedures and standards set forth in Part 54 to accommodate newer technologies, such as satellites, in order to bring telecommunications services to unserved and underserved areas of the United States.[16]

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[11] BAM Comments *at* 22.

[12] *Id. at* 24.

[13] *Id.*

[14] The USF currently supports the following services: (1) single-party service, (2) voice-grade access to the public switched network, (3) dual tone multi frequency ("DTMF") signaling or its functional equivalent, (4) access to interexchange service, (5) access to emergency services, (6) access to operator services, (7) access to directory assistance, (8) toll limitation services for qualifying low-income consumers, and (9) local usage minutes. *See* 47 C.F.R. § 54.101(a).

[15] *See* Motorola and INA Comments at 11-13, 17-18 (discussing specific services that can be provided by INA under a flexible interpretation of USF ETC requirements).

[16] CCI Comments *at* 3; Titan Comments *at* 3 ("The Commission should display relative flexibility and consider certain limited exceptions to the required list of services . . . ."); *see also* Globalstar Comments *at* 10 ("Globalstar services are, by design, not a functional substitute for

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Certain commenters argue that the Commission should not hold wireless carriers to a lower standard than wireline carriers for purposes of determining ETC eligibility, because it would encourage investment in lower-quality wireless services.[17] Clearly, these commenters are uninformed as to the quality of the service offerings now being provided by satellite carriers and the anticipated advancements in service offerings in the not too distant future. Moreover, we are not asking the Commission to hold wireless carriers to a lower standard, but merely that all types of carriers be treated fairly under the USF rules so that the consumers who currently do not have any telecommunications services or limited services can receive the benefits of new technologies now being enjoyed by a vast majority of Americans.

An important issue addressed by several commenters in this proceeding concerns the calculation of "working-loop costs," a component of the USF support system. Satellite and terrestrial wireless costs tend to vary with the amount of time a subscriber uses the telephone, but the universal service support provisions currently embodied in the rules do not accommodate

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basic telecommunications services but a cost-effective way of bringing some level of service to geographic areas that are difficult, if not impossible to serve economically using other technologies.").

Motorola and INA also reiterate their opposition to any Commission order *requiring* satellite telecommunications carriers to provide services to unserved areas under § 214 (e)(3) of the Act of 1996 (giving the Commission the power to order carriers to serve unserved markets); FNPRM, ¶ 83. Currently, this provision and the USF rules are inappropriate estimators of the costs satellite telecommunications providers incur in extending service to subscribers. *See also* Titan Comments *at* 2, 6-7 (urging the Commission not to *order* satellite carriers to provide service to unserved areas).

[17] Comments of CenturyTel *at* 14-15; *see also* NRTA and OPASTCO Comments *at* 7 (expressing concern that encouraging new technology can delay or prevent service improvements); RUS Comments *at* 4,11 ("The Commission should avoid 'quick fixes' through the creation of artificial incentives for low bandwidth voice-only services.").

such costs.[18] The Commission's Rules must be revised to reflect costs for satellite and wireless technologies that are allocated differently from those associated with wireline carrier services. For its part, Globalstar suggests that the Commission establish an affordability benchmark based on an objective assessment of tribal residents' ability to pay for service.[19] The high-cost fund would then subsidize the difference between that benchmark and the satellite provider's service rate, as determined by a competitive bidding process.[20] Motorola and INA can support this and other approaches that recognize and accommodate the varying cost structures of advanced technologies.

With regard to the current "local usage" requirement for ETC eligibility, AMSC concurs with Motorola and INA in urging the Commission to clarify that carriers that charge for local service based on usage should be eligible for high-cost support.[21] Local usage requirements should be technology neutral, permitting carriers to offer some minimum number of local calling minutes or local calls at a discounted rate that is deemed affordable.[22]

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[18] CCI Comments at 2 (explaining that MSS costs must be recovered by airtime and monthly access charges); GCI Comments *at* 4-7 (advocating for universal service support for intrastate toll calling).

[19] Globalstar Comments *at* 7, 12 (addressing the USF system loophole of not providing a support mechanism for Competitive Local Exchange Carriers (CLECs) wishing to provide telecommunications services to currently unserved areas).

[20] *Id.* These subsidies could be provided to the satellite telecommunications carrier or to the consumers in the form of telecommunications service vouchers. *Id. at* 7 n.4.

[21] AMSC Comments *at* 4.

[22] *Id. at* 9; BAM Comments *at* 21 (urging the Commission to declare that the "local usage" requirement can be satisfied by providing a "basket" of minutes for a fixed monthly fee); Titan Comments *at* 3 (urging the Commission to allow "satellite carriers to provide discount minutes as part of a calling plan that effectively ensures access to emergency services and provides operator or directory assistance through the services of another operator."); *see also* GCI Comments *at* 4-6 (proposing the Commission provide limited USF support for intrastate toll (Continued ...)

III. THE COMMISSION SHOULD DECLARE TRIBAL LANDS TO BE SEPARATE "STUDY AREAS"

Nearly all commenters that discuss separate tribal-land study areas agree with Motorola's and INA's position that such areas should be created in order to increase the universal service support available for providing service.[23] The Commission should define each tribal area to be a separate study area because only such a definition can accurately reflect the relevant costs of providing telecommunications services. The administrative costs associated with increasing support to unserved tribal areas is eclipsed by the societal and personal costs associated with the lingering problem of unserved citizens.

IV. CONCLUSION

The Iridium satellite system provides global telecommunications services and is accessible to virtually all areas in the United States currently unserved by telecommunications carriers. With USF support, INA and other Iridium service providers will be better able to

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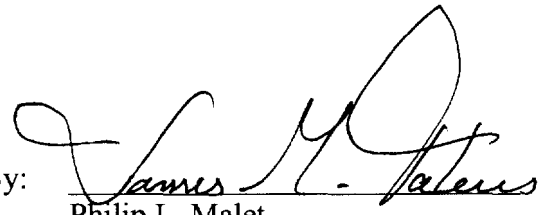
calls); Alaska Comments *at* 21 (endorsing the proposal to provide limited support for intrastate toll calls).

[23] Titan Comments *at* 5 (supporting the notion of separate tribal study areas); Joint Comments of the Salt River Pima-Maricopa Indian Community and the National Tribal Telecommunications Alliance *at* 15 (Dec. 17, 1999) ("To address the problem of insufficient USF funding, the Commission should establish Indian reservations as their own study areas . . . ."); USCC Comments *at* 12 (supporting the establishment of a separate fund for tribal lands); RUS Comments *at* 9 (suggesting that "a new study area should be created for each unserved area."); *see also* Initial Comments of the National Telephone Cooperative Association *at* 23 (Dec. 17, 1999) (supporting efforts to increase support to tribal areas if the high-cost cap is lifted); *but see* GTE Comments *at* 20 (claiming that designating tribal lands as separate study areas would impose significant administrative costs).

provide affordable telecommunications services to tribal lands and other unserved areas in the United States.

Respectfully submitted,

By: 

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